

Lab 7

Name :abhinav c

Usn 1bm23cs008

```
import java.util.Scanner;
```

```
class NegativeAgeError extends Exception {  
    int a;
```

```
    public NegativeAgeError(int a) {  
        this.a = a;  
    }
```

```
    @Override  
    public String toString() {  
        return "Negative Age: " + a;  
    }  
}
```

```
class InvalidAgeError extends Exception {  
    int a, b;
```

```
    public InvalidAgeError(int a, int b) {  
        this.a = a;  
        this.b = b;  
    }
```

```
    @Override  
    public String toString() {  
        return "Invalid Age: " + a + " is less than " + b;  
    }  
}
```

```
class Father {  
    String name;  
    int age;
```

```
    Father(String name, int age) {  
        try {  
            if (age < 0) {  
                throw new NegativeAgeError(age);  
            }  
            this.name = name;  
            this.age = age;
```

```

        } catch (NegativeAgeError e) {
            System.out.println(e);
        }
    }
}

class Son extends Father {
    String sonName;
    int sonAge;

    Son(String sonName, int sonAge, String fatherName, int fatherAge) {
        super(fatherName, fatherAge);
        this.sonName = sonName;
        try {
            if (sonAge < 0) {
                throw new NegativeAgeError(sonAge);
            }
            if (sonAge >= fatherAge) {
                throw new InvalidAgeError(sonAge, fatherAge);
            }
            this.sonAge = sonAge;
        } catch (NegativeAgeError e) {
            System.out.println(e);
        } catch (InvalidAgeError e) {
            System.out.println(e);
        }
    }
}

```

```

public class Exceptions {
    public static void main(String[] args) {
        System.out.println("Abhinav C\nUSN : 1BM23CS008");
    }
}

```

```

Scanner sc = new Scanner(System.in);

```

```

System.out.println("Enter son name");
String name = sc.next();

```

```

System.out.println("Enter son age");
int age = sc.nextInt();

```

```

System.out.println("Enter father name");

```

```
String fatherName = sc.next();

System.out.println("Enter father's age");
int fatherAge = sc.nextInt();
Son a1 = new Son(name, age, fatherName, fatherAge);

System.out.println("End of program");
}
}
```

```
Abhinav C
USN : 1BM23CS008
Enter son name
abhinavc
Enter son age
10
Enter father name
ram
Enter father's age
7
Invalid Age: 10 is less than 7
End of program
```

```
Abhinav C
USN : 1BM23CS008
Enter son name
abhinav
Enter son age
123
Enter father name
1bm23cs008
Enter father's age
124
End of program
```